

A NEW ROMBLONELLA FROM PALAU, AND THE
FIRST DESCRIPTION OF A ROMBLONELLA MALE
(HYMENOPTERA, FORMICIDÆ)

BY MARION R. SMITH

BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE, AGRICULTURAL RESEARCH
ADMINISTRATION, UNITED STATES DEPARTMENT OF AGRICULTURE

Since publishing a revisionary paper on the genus *Romblonella* (Smith 1953), I have received some specimens from Palau (Micronesian Islands) which represent a new species. The material sent through the Pacific Science Board, Honolulu, Hawaii, contained, in addition to the new species, the males of several other species of *Romblonella* from the islands of Palau, Yap, and Ponape. Five of the male specimens I feel confident are of the new species, although they do not come from the same locality on Palau as the workers. I am describing them as the male of the new species but am not including them in the type series.

The males are of more than usual interest, since they enable more certain placement of the genus in the proper tribe and represent the first individuals of this sex to be recorded. A study of the male has convinced me that the genus *Romblonella* does not belong in the tribe Meranoplina, as previously placed by Wheeler (1935) and myself (Smith 1953), but to the tribe Myrmecini, subtribe Podomyrmina, in the sense of Emery, 1922 (Genera Insectorum, pages 230, 236). The anterior wing differs from that of most myrmecine ants in lacking a discoidal cell and in the possession of a single closed cubital cell and a single closed radial cell, the latter being appendiculate and bearing on its ventral border a spur of a vein which originates before the middle of the cell. Other peculiarities are the form of the antennæ and the shape of the thorax, all of which are described below.

It is regrettable that the material from Palau and the other islands does not add to our knowledge of the biology of the various species of *Romblonella*. In my revisionary article I stated that the genus seems to be confined to the Oriental and Australian regions. It now seems that the genus is especially well represented on the islands in the general vicinity of the Philippines.

Romblonella palauensis n. sp.

Worker: Length 4.6 mm.

Head subrectangular, measured through its greatest breadth and width approximately as wide as long, with rounded posterior corners, weakly emarginate posterior border and weakly convex sides. No ocelli. Eye moderately large, oval, convex, placed closer to the posterior than the anterior border of the head. Mandible of about normal size, subtriangular, the masticatory border with 6 teeth. Clypeus extended posteriorly between the frontal carinae, the anterior border sinuate laterally but in the middle forming a broad projecting lobe, which is almost straight in a transverse direction. Antenna short, 12-segmented, the scape lacking approximately 0.2 mm. of reaching the posterior border of the head, lying in a weak scrobe, the mesal border of which is formed by the posteriorly diverging frontal carina which is approximately the length of the scape, exterior border of the scrobe without a carina; funiculus with a distinct 3-segmented club which is clearly longer than the remainder of the funiculus, the second through the seventh funicular segments clearly broader than long. Frontal area not well defined. Thorax dorsally without promesonotal and mesoepinotal sutures, widest at the pronotum which is sharply marginate both anteriorly and laterally and with the anterolateral and posterolateral angles well defined; narrowest somewhat anterior to the base of the epinotal spines where it is approximately 0.5 mm. in width. Epinotal spines unusually long (0.5 mm. or slightly more in length) and directed posteroventrally; from above, the spines appear subparallel. In profile, the thorax is flattened on the pronotum and weakly arched on the mesoepinotum, there is also a precipitous incline from the anterior border of the pronotum to the pronotal collar. Legs with incrassated femora, the middle and posterior legs without tibial spurs, the tarsal claws simple. Petiole non-pedunculate, the node from above subrectangular, very distinctly longer than broad (0.4 mm. in width and 0.6 mm. in length). Postpetiole voluminous, transversely elliptical (approximately 0.5 mm. in length and 0.7 mm. in width); ventral surface of postpetiole with a conspicuous clump of erect hairs anteriorly, such as have also been observed in other species of this genus. Gaster, from above, longitudinally elliptical, the base without humeri and the first segment occupying most of the surface.

Mandible longitudinally striate and also sparsely punctate. Clypeus with six prominent, longitudinal carinae, the interspaces and ground surface finely reticulate. Frontal area finely and longitudinally striated and with fine reticulate interspaces. Surface of head between the frontal carinae with rather fine longitudinal rugulae and reticulate interspaces, this type of sculpture extending from the frontal area to the occiput. Sides of head, especially the cheeks, coarsely and irregularly reticulate with fine reticulate interspaces. Thorax above, with coarse, longitudinal rugulae and finely reticulate interspaces. Mesopleura and metapleura with a few oblique rugulae, the interspaces as well as the rest of the areas finely reticulate.

Dorsal surface of petiole and postpetiole with coarse longitudinal rugulæ and reticulate interspaces. Dorsal surface of first gastric segment finely and densely reticulate. Body and appendages, except the legs and antennæ, subopaque. First gastric segment with a peculiar sheen or luster.

Head, legs excepting the tarsi, epinotal spines, and gaster blackish; remainder of body lighter; thorax, petiole and postpetiole light brown or reddish brown.

Hair moderately abundant, rather uniformly distributed on the body, white, short, coarse, erect, obtuse, and of nearly equal length except near the apex of the gaster. Apparently shorter and more oblique on the scapes and legs. Pubescence very sparse or lacking, most noticeable on the gaster.

Male: Length 4.6 mm.

Closely approximating the worker in length but more slender, with longer legs and antennæ. Head, including the eyes, but not the mandibles, almost one-fourth broader than long. Ocelli unusually large, placed prominently on the vertex, mostly above the posterior borders of the eyes; the longitudinal axis of the anterior ocellus running transversely across the head, the longitudinal axis of each posterior ocellus obliquely directed. Eye, viewed from the front, unusually large, convex, protuberant, occupying all of the side of the head except the cheek which is approximately 0.05 mm. in length. Antenna elongate, subfiliform, 13-segmented, with rather distinct constrictions between the segments; scape, not including the base, unusually short, approximately 0.2 mm. in length; first funicular segment extremely short, broader than long and shorter than the scape, second funicular segment unusually long (the longest of all the antennal segments), approximately 0.4 mm. in length. Clypeus apparently projecting more in the middle of its anterior border than elsewhere. Mandible well developed, subtriangular, the masticatory border with 6 or 7 very distinct teeth, the apical tooth the longest. Maxillary palpus 5-segmented, labial palpus 3-segmented. Thorax, in profile, highest through the mesonotum where it measures approximately 1 mm., lowest where the base and declivity of the epinotum meet; anteriorly a very sharp incline from the mesonotum to the pronotum and from the pronotum to the pronotal collar, these inclines being of such a nature that the pronotum projects below the mesonotum and the pronotal collar projects beneath the pronotum. Legs rather long and slender without noticeably enlarged femora and tibiæ. Spurs and claws as with the worker. Thorax, from above, with distinct parapsidal sutures but incompletely developed Mayrian furrow, the two anterior arms of the Mayrian furrow, although distinct, failing to meet posteriorly. Anterior wing without a discoidal cell but with a single closed cubital and a single closed radial cell, the radial cell being appendiculate and also bearing ventrally a spur of a vein which originates before the middle of the cell. Petiolar node from above, subcylindrical, elongate (about 0.6 mm. in length), postpetiolar node shorter than the petiolar node and widened posteriorly; each node bearing a pair of lateral spiracles near its base. Gaster, from above, elongate, subellip-

tial; in profile, the gaster impressed dorsoventrally. Genital appendages retracted, not visible.

Clypeus with several distinct longitudinal carinae, the ground surface very finely reticulate. Head rather coarsely ruguloso-reticulate with finer reticulate interspaces; the rugulae largely longitudinal in trend from the frontal area to the anterior ocellus. Dorsal surface of thorax with weak rugulae borne on a ground surface of fine reticulae. Epinotum transversely rugulose, with reticulate interspaces. Petiolar and postpetiolar nodes longitudinally rugulose with reticulate interspaces. First gastric segment with such weak reticulae that they are not easily seen and do not cast the same luster or sheen as they do with the worker.

Hair light yellowish, suberect to erect, moderately abundant and scattered over the body, more reclinate on the appendages. Antenna clothed with dense, yellowish, reclinate pile, which seems to arise from punctures. Ventral surface of postpetiole with a clump or tuft of erect hairs.

Body brown to brownish black with lighter appendages. Wings brown, with an iridescence in some lights; the vein and stigma rather distinct.

Type locality: Auluptagel (Aurapushekaru) I., Palau; Sept. 1952; N. L. H. Krauss.

Other localities: N. E. Urukthapel I., 180 m., Palau, Ngerendin; Dec. 5, 1952; J. L. Gressitt; 1 worker. E. Ngatpang, 65 m., Babelthuap I., Palau; Dec. 6, 1952 (1 male), Dec. 9, 1952 (2 males), Dec. 10, 1952 (2 males); light trap; J. L. Gressitt.

Described from a holotype and seven paratype workers. These have been distributed as follows: The holotype and three paratype workers to the United States National Museum (U.S.N.M. No. 62024), two paratype workers to the Museum of Comparative Zoology, Cambridge, Massachusetts, and two paratype workers to the Bishop Museum, Honolulu, Hawaii. The specimens which are not types have been distributed in the following manner: One worker and one male to the Museum of Comparative Zoology, three males to the United States National Museum, and one male to the Bishop Museum. Paratypes differ from the holotype mainly in color, some specimens being blackish (but not black) except for the mandibles, funiculi and tarsi. One of the individuals is a callow which I shall not describe.

The males vary in length of body (4.3–4.7 mm.) dentition of mandibles (five to six teeth), and sculpture. The sculpture on the petiolar and postpetiolar nodes, for instance, is not as strong and well defined in some individuals as in others.

The worker of *palauensis* can be readily distinguished from the workers of all previously described forms by the peculiarly flattened and sharply marginate (both anteriorly and laterally) pronotum, the extraordinarily large epinotal spines which are approximately 0.5 mm. in length and directed posteroventrad, and the voluminous petiolar node, which from above is somewhat rectangular and very distinctly longer than broad.

LITERATURE CITED

- WHEELER, W. M. 1935. Two New Genera of Myrmicine Ants From Papua and the Philippines. Proc. New Engl. Zool. Club. 15: 5-9, 1 fig. (*Romblonella* page citations only).
- SMITH, MARION R. 1953. A Revision of the Genus *Romblonella*. Proc. Hawaii. Ent. Soc. 15: 75-79, 1 fig.